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Citation: Crick, Tom, Prickett, Tom, Davenport, James and Irons, Alastair (2020) Assessing the value of professional body accreditation of computer science degree programmes: A UK case study. In: ITICSE '20: Proceedings of the 2020 ACM Conference on Innovation and Technology in Computer Science Education: June 15-19, 2020, Trondheim, Norway. Association for Computing Machinery, New York, p. 565. ISBN 9781450368742

Published by: Association for Computing Machinery

URL: <https://doi.org/10.1145/3341525.3393980> <<https://doi.org/10.1145/3341525.3393980>>

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Assessing the Value of Professional Body Accreditation of Computer Science Degree Programmes: A UK Case Study

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ABSTRACT

This poster presents a model for the value provided by professional body accreditation of computer science degree programmes in the United Kingdom (UK). We introduce how one large UK professional computing body – BCS, The Chartered Institute for IT – addresses degree accreditation, as well as recent changes to content and process. Whilst comparable accreditation regimes exist in a number of other jurisdictions, we provide the opportunity for exploring future extensions to, and the portability of, the UK model.

CCS CONCEPTS

• **Social and professional topics** → **Accreditation**; *Computing education programs*; Employment issues.

KEYWORDS

Accreditation, Professional Body, Curricula Design

ACM Reference Format:

Tom Crick, Tom Prickett, James H. Davenport, and Alastair Irons. 2020. Assessing the Value of Professional Body Accreditation of Computer Science Degree Programmes: A UK Case Study. In *2020 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE'20)*, June 15–19, 2020, Trondheim, Norway. ACM, New York, NY, USA, 1 page. <https://doi.org/10.1145/XXXXXX.XXXXXX>

THE MODEL

The value of professional body degree accreditation regimes as a kite-marking exercise (or to support a globally-portable and recognised workforce) remains high [6]. Equally, the respective national (or otherwise) regimes are criticised for being perceived to be unnecessarily bureaucratic and potentially constraining innovation in learning and teaching [5]; generating revenues streams in their own right rather than for the benefit of a discipline or wider society [6]; or colonial and paternalistic in nature [7]. The model presented in this poster was generated by insights obtained from the views of UK higher education institutions (HEIs) through a range of formal and informal events organised by BCS, The Chartered Institute for IT: canvassed as part of 18 formal accreditation visits (from September 2018–September 2019); workshops run between November

2018 and November 2019 as part of the operation of BCS Academic Accreditation Committee (AAC); and survey-based feedback gained from BCS Academic Assessors, attendees of the 2020 ACM Computing Education Practice Conference in Durham, UK [4] and the readership of ITNow [3], the ‘the voice of the BCS’ which publishes articles on all aspects of computing and IT. The proposed model represents a commitment to continuously review and enhance practices in response to criticism (e.g. by removing bureaucracy, further supporting graduate employment, etc.) and to enhance the overall value provided. The following are aspects of the current value to accredited HEIs.

- Raising output standards, essentially performing a kite-marking function.
- Employ internationally-recognised standards and memoranda (e.g. Seoul Accord, Washington Accord, EQANIE) to promote the global parity of computer science education and hence the mobility of graduates.
- Ensuring curricula relevance e.g. coverage of cybersecurity [2], team working and professional environment
- Identifying and disseminating practice highlights either directly [1] or via other means such as conferences (e.g. ACM CEP Conference [4])
- Industry relevance by mandating the inclusion of industrialist upon accreditation panels
- Accrediting work experience in degree programmes.

FUTURE WORK

The feedback to date indicates that generic criticisms of professional body accreditation regimes notwithstanding, the developed model is broadly accepted in the UK jurisdiction. The next step is to explore the portability and compare the applicability of this model to other jurisdictions.

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ITiCSE '20, June 15–19, 2020, Trondheim, Norway

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ACM ISBN 978-1-4503-6874-2/20/06...\$15.00

<https://doi.org/10.1145/XXXXXX.XXXXXX>